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SUBJECT: NEXT STEPS FOR U.S./SOUTH AFRICA AGREEMENT TO TAKE
BACK U.S.-ORIGIN SPENT NUCLEAR FUEL

1. This cable is sensitive but unclassified. Not for internet distribution.

2. (SBU) Summary. South African government approval will be more likely for a project to take back U.S.-origin nuclear fuel assemblies once a technical feasibility study has been revised by the Department of Energy (DOE) and the Nuclear Energy Corporation of South Africa (NECSA) to explain the benefits of the project such as knowledge transfer and storage space creation. End Summary.

3. (SBU) A feasibility study to take back U.S.-origin spent nuclear fuel from South Africa is being revised by the U.S. Department of Energy (DOE) and the Nuclear Energy Corporation of South Africa (NECSA) to improve likelihood that the project will gain approval from the South African government.

The original version of the feasibility study addressed primarily the technical challenges relating to returning U.S.-origin spent nuclear fuel assemblies from the South African SAFARI research reactor. The revised feasibility study will address concerns expressed by South African Department of Minerals and Energy (DME) Nuclear Chief Mr. Tseliso Maquebela.

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4. (SBU) Econoff and DOE's Andrew Bieniawski and Charles Messick met October 27th with DME Nuclear Chief Mr. Tseliso Maquebela to discuss the U.S. origin nuclear fuel take back program feasibility study. Two days later on the margins of the RERTR (Reduced Enrichment for Research and Test Reactors) International Meeting in Cape Town, Econoff, Bieniawski and Messick met with NECSA's CEO Rob Adam and GM Van Zyl de Villiers to revise the study. During the meeting with Maquebela, Maquebela stated that the study did a good job of addressing the technical challenges relating to the shipment of spent fuel assemblies from the SAFARI nuclear test reactor in Pelindba, 30 km west of Pretoria, to the South African coast. However, Maquebela stated that "certain elements" within the South African government needed to be convinced of the benefits of returning the spent fuel and that the feasibility study did not fully convey these benefits.

5. (SBU) Chief among the benefits to incur to South Africa by shipping spent nuclear fuel back to the U.S. are storage space creation and knowledge transfer. South Africa stores spent-fuel of various origin at both the Pelindaba site and at its commercial reactor site at Koeberg near Cape Town. The South African's are running out of on-site storage space and need to either create more space or begin shipping spent-fuel out of the country or to alternative designated sites within South Africa. DME's severely understaffed nuclear section lacks the knowledge base to oversee such shipments. Maquebela has repeatedly expressed his desire to

learn from the experience of shipping U.S.-origin fuel and hopes that significant knowledge transfer will result and that the knowledge will be used for other fuel shipments.

16. (SBU) A revised feasibility study will be authored within the next thirty days by NECSA and DOE for delivery to DME's Maqubela who offered assurances that the study will then be sent expeditiously to DME Minister Buyelwa Sonjica for her approval. Maqubela was unclear about the nature of the approval process after obtaining the minister's blessing. He said the project needed to be discussed by the cabinet but he also thought that the revised feasibility study and the minister's approval would be enough to obtain parliament's approval for the project.
BOST